

**REMARKS**

Reconsideration of this application, as presently amended, is respectfully requested. Claims 2-7 are now pending in the present application, claim 1 having been cancelled by the present Amendment. Claims 1-7 were rejected.

**Specification Changes**

Although the specification was not objected to, the specification has been amended to improve form in accordance with preferred U.S. format. All of the changes below refer to portions of the originally filed specification.

Specifically, first, on page 3, lines 9-10 of the specification as originally filed, the headings “DISCLOSURE OF THE INVENTION” and “PROBLEMS SOLVED BY THE INVENTION” have been deleted. Second, on page 4, between paragraphs [0009] and [0010], the section heading “SUMMARY OF THE INVENTION” has been added. Third, on page 5, line 2, the heading “MEANS FOR SOLVING THE PROBLEM” has been deleted. Fourth, on page 12, line 9, the heading “EFFECTS OF THE INVENTION” has been deleted. Fifth, on page 12, line 17, the heading “BEST MODE FOR CARRYING OUT THE INVENTION” has been changed to -DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS--.

Finally, the entire “BRIEF DESCRIPTION OF THE DRAWINGS” section, which is currently found on pages 25 and 26 of the specification, has been moved to page 12 of the specification between paragraphs [0031] and [0032].

Each of the changes proposed above places the application in preferred U.S. format. Approval and entry of the changes to the specification are earnestly solicited.

### **Claim Objections**

Claim 7 was objected to under 35 U.S.C. §1.75(c) as allegedly being in improper form because it contains improper multiple dependent claim language. This objection is respectfully traversed.

More specifically, claim 7 is not in improper form and satisfies 37 C.F.R. §1.75(c), which states “Any dependent claim which refers to more than one other claim ....shall refer to such other claims in the alternative only.” That is, a multiple dependent claim must *not* refer to two or more claims at the same time.

The language “A manipulator with multiple degrees of freedom according to *any one of claims 3 to 6*” does in fact refer to claims 3-6 in the alternative. That is “according to any one of claim 3-6” is the same as “according to claim 3 or claim 4 or claim 5 or claim 6”.

Moreover, the Manual of Patent Examining Procedure (MPEP) §608.01(n)A. gives several examples of acceptable multiple dependent claim wording. One of the examples is “A gadget as in *any one of the preceding claims*” [Emphasis added]. Another of the examples is, “A gadget as in *one of claims 4-7*” [Emphasis added]. The multiple dependent claim language of claim 7 is essentially the same as in these examples.

Accordingly, the objection to claim 7 is traversed for the reasons discussed above. However, if for some reason the Examiner is still not satisfied, applicants would ask the Examiner to explain in detail why the language of claim 7 does not satisfy 35 U.S.C. §1.75(c).

**Claim Rejections – 35 U.S.C. §102**

Claims 1-7 were rejected under 35 U.S.C. §102(b) as being anticipated by **Jinno** (USP 6,889,116). For the reasons set forth in detail below, this rejection is respectfully traversed.

Initially, it is noted that claim independent claim 2 has been amended to recite “wherein each of the link mechanisms is a mechanism in which a plurality of rigid links is connected in pair.” Support for this amendment is found, e.g., in paragraph [0015].

**Jinno** fails to disclose that a drive power of drive means is converted into rotary motion of gripping members by a “link mechanism”, that is “a mechanism in which a plurality of rigid links is connected in pair”. **Jinno**’s manipulator transmits drive power to pulleys by wires to open/close gripping members. Such a wire-driven manipulator is related to the prior art manipulator described in applicants specification, where opening/closing of the gripping portion are achieved by winding up *a wire around a pulley* with a drive unit. Such a wire-driven manipulator results in the problems to be solved by the present invention. See paragraphs [0005] to [0010] of the present application.

In accordance with an aspect of the present invention “a mechanism in which a plurality of rigid links is connected in pair” is used as means of transmitting (converting) drive power to thereby abolish a wire, which is a conventional ordinary means. Thus, the present invention

achieves the following advantages: “The link mechanism cannot be elongated or broken unlike wire because the link mechanism has a high stiffness. Thus, the durability can be improved thereby minimizing the frequency of replacement of the manipulator. Further, the control accuracy and gripping force of the gripping member and rotary portion can be increased because link mechanism is never elongated or contracted unlike wire. Further, the link mechanism is easy to sterilize and clean. Additionally, attachment and detachment between the manipulator and driving means can be simplified or facilitated because the link does not need to be wound around a gear or pulley unlike wire.” See paragraph [0016] of the application specification.

It is well established that anticipation under §102 is established only if all the elements of an invention, as stated in the claim, are identically set forth in a single prior art reference. The **Jinno** reference does not disclose or suggest all elements recited in claim 2. Accordingly, the rejection of claim 2, and claims 3-7 which depend therefrom, under §102 is improper and should be withdrawn.

### CONCLUSION

In view of the foregoing, it is submitted that all pending claims are in condition for allowance. A prompt and favorable reconsideration of the rejection and an indication of allowability of all pending claims are earnestly solicited.

If the Examiner believes that there are issues remaining to be resolved in this application, the Examiner is invited to contact the undersigned attorney at the telephone number indicated below to arrange for an interview to expedite and complete prosecution of this case.

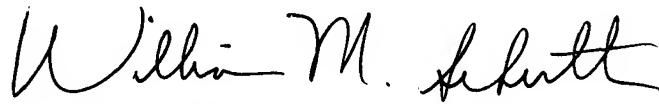
Application No.: 10/582,885  
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Amendment under 37 C.F.R. §1.111  
Attorney Docket No.: 062670

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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